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DATASHEET

Endothelin 2 (human)

Product overview

Name	Endothelin 2 (human)
Cat No	HB3267
Biological description	**Overview**

Endothelin 2 is an endogenous neuropeptide which has the same affinity as endothelin 1 (ET-1) for both the ET_A and ET_B receptors.

It tightly binds to smooth muscle ET_A receptors to causes potent, long-lasting vasoconstriction.

Uses & applications

It has been shown to have a key role in ovarian physiology and has also been implicated in immunology, cancer and the cardiovascular system.

Alternative names	ET-2, Edn2, VIC
Biological action	Peptide
Purity	>95%
Description	Vasoconstrictive neuropeptide.

Solubility & Handling

Storage instructions	-20°C (desiccate)
Solubility overview	Soluble in water (1 mg/ml)
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use

Chemical Data

Chemical name	CSCSSWLDKECVYFCHLDIIW Disulfide bridge between 1 - 15, 3 - 11
Molecular Weight	2546.94
Chemical structure	
Molecular Formula	$C_{115}H_{160}N_{26}O_{32}S_4$
Sequence (one letter)	CSCSSWLDKECVYFCHLDIIW
Sequence (three letter)	Cys-Ser-Cys-Ser-Ser-Trp-Leu-Asp-Lys-Glu-Cys-Val-Tyr-Phe-Cys-His-Leu-Asp-Ile-Ile-Trp
Modifications	Disulfide bridge between 1 - 15, 3 - 11
CAS Number	123562-20-9
PubChem identifier	16133808
SMILES	CC[C@H](C)[C@@H](C(=O)N[C@@H]([C@@H](C)CC)C(=O)N[C@@H](CC1=CNC2=CC=CC=C21)C(=O)O)NC(=O)[C@H](CC(=O)O)NC(=O)[C@H](CC(C)C)NC(=O)[C@H](CC3=CNC=N3)NC(=O)[C@@H]4CSSC[C@@H](C(=O)N[C@H](C(=O)N[C@H]5CSSC[C@@H](C(=O)N[C@H](C(=O)N[C@H](C(=O)N[C@H](C(=O)N4)CC6=CC=CC=C6)CC7=CC=C(C=C7)O)C(C)C)NC(=O)[C@@H](NC(=O)[C@@H](NC(=O)[C@@H](NC(=O)[C@@H](NC(=O)[C@@H](NC(=O)[C@@H](NC5=O)CO)CO)CC8=CNC9=CC=CC=C98)CC(C)C)CC(=O)O)CCCCN)CCC(=O)O)CO)N
InChiKey	MLFJHYIHIKEBTQ-IYRKOGFYSA-N
MDL number	MFCD00133306
Protein length	21

References

Endothelin-2, the forgotten isoform: emerging role in the cardiovascular system, ovarian development, immunology and cancer

Ling L *et al* (2013) Br J Pharmacol 168(2)
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Endothelin-1 and endothelin-2 initiate and maintain contractile responses by different mechanisms in rat mesenteric and cerebral arteries

Compeer MG *et al* (2013) Br J Pharmacol 170(6)
PubMedID 23941276

The human endothelin family: three structurally and pharmacologically distinct isopeptides predicted by three separate genes

Inoue A *et al* (1989) Proc Natl Acad Sci U S A 86(8)
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